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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/766,797      | 01/28/2004  | William R. McIntire  | 56.0470DIV          | 4000             |

27452 7590 08/23/2004

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EXAMINER

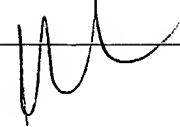
RIVELL, JOHN A

ART UNIT PAPER NUMBER

3753

DATE MAILED: 08/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                               |  |  |
|------------------------------|-------------------------------|--|--|
| <b>Office Action Summary</b> | Application No.<br>10/766,797 | Applicant(s)<br>MCINTIRE ET AL.  |  |
|                              | Examiner<br>John Rivell       | Art Unit<br>3753   |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2004.
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 39-43 is/are pending ~~in~~ the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 39 and 43 is/are re ~~cted~~. 242Y\*p794Xe
- 7) ☒ Claim(s) 40-42 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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By preliminary amendment filed concurrently with the application, formal drawings including changes in figures 1-4, 9, 10, 13 and 14 are approved. Thus all drawings are currently approved.

Additionally, in the preliminary amendment claims 1-38 have been canceled in favor of new claims 39-43.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 39 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowerman in view of King, Sr.

The patent to Bowerman discloses "a valve apparatus having a longitudinal axis therethrough, comprising: i) a valve seat member (5) that comprises a hollow bore and a first frustoconical contact surface (6); ii) a valve closure member (7) that comprises a body and a second frustoconical contact surface (8) that is adapted to seal against the first frustoconical contact surface (6), the valve closure member being movable along the longitudinal axis of the valve apparatus; iii) a fluid flow path through the bore of the valve seat member and between the valve seat member and the valve closure member, the fluid flow path being closed when the second frustoconical contact surface (8) is in

contact with the first frustoconical contact surface (6); and iv) a reverse screening member (9, 10) that is attached to at least one of the valve closure member (7) or the valve seat member and that screens particles from fluid passing through the fluid flow path in a reverse direction when the valve closure member approaches the valve seat member" as recited in claim 39.

Thus the patent to Bowerman discloses all the claimed features with the exception of having "a means to delay the valve closure while the reverse screening member is within a range of screening distances from the opposing frustoconical contact surface wherein the means to delay valve closure is a resilient screening insert which allows the passage of screened fluid until differential pressure across the valve deforms the insert to seal the valve, and further wherein the resilient screening insert comprises at least one protrusion from its contacting surface, and the one or more protrusions create a screening gap between the insert and the opposing frustoconical contacting surface when the valve closure member approaches the valve seat member".

This feature called for by the claim is directed to an element extending from the valve seat facing surface of a valve heads which initially prevents the valve from seating "until differential pressure across the valve deforms the insert to seal the valve". This feature is not exclusive to plural seating valves of the type claimed but can be found in any valve environment in which the function, e.g. no seating "until differential pressure across the valve deforms the insert to seal the valve" is desired.

The patent to King, Sr. discloses that it is known in the art to employ "protrusions 120 in figure 13, extending from the valve seat facing surface of a valve head cooperating with a valve seat 102 for the purpose of maintaining the valve head away from the seat and thus in an open position permitting fluid flow across the valve "until

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differential pressure across the valve deforms the insert to seal the valve". As an aside the protrusion also forms a "gap" of certain size functioning to filter out particles larger than the "gap" size.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Bowerman "protrusions" extending from the "reverse screening member" 9,10 for the purpose of maintaining the valve head away from the seat and thus in an open position permitting fluid flow across the valve until differential pressure across the valve deforms the insert to seal the valve as recognized by King, Sr.

Regarding claim 43, in King, Sr., "the one or more protrusions (120) are of non-resilient material, and (in the device of the combination) the insert deforms over the protrusions to seal the valve" as recited.

Claims 40-42 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

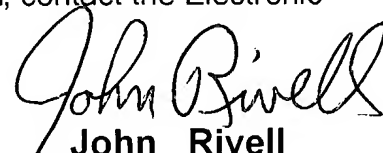
Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Rivell whose telephone number is (703) 308-2599. The examiner can normally be reached on Mon.-Thur. from 6:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Scherbel can be reached on (703) 308-1272. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**John Rivell**  
**Primary Examiner**  
**Art Unit 3753**

j.r.